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10/004,439

10/23/2001

Sven O. Lund

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07/22/2005

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EXAMINER

SHAH, CHIRAG G

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 07/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/004,439

Applicant(s)

LUND, SVEN O.

Examiner

Chirag G. Shah

Art Unit

2664

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10/23/01.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8-11,13 and 14 is/are rejected.
- 7) ☒ Claim(s) 2,3,7,12 and 15-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The disclosure is objected to because of the following informalities: Specification fails to disclose a Brief Summary of the Invention.

Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth.

- Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1, 4-6, 8, 10-11, and 13 rejected under 35 U.S.C. 102(a) as being anticipated by TR-037 ("Auto-Configuration for the Connection Between the DSL Broadband Network Termination (B-NT) and the Network using ATM", March 2001), herein after referred as "DSL Forum".

Regarding claim 1, DSL Forum discloses on page 7, section 6 of a method to configure a network device (DSL: **B-NT-User side IME (Interface Management Entity)** at the customer premise, disclosed on page 7, section 6, numbers 3 and 5), comprising:

receiving a request to configure a first permanent virtual circuit (PVC) [customer requests/orders for services, see page 7, section 6, number 2; whereby based on the (received) order, the user side IME performs an **ILMI based Auto-configuration** by obtaining configuration parameters and user profiles for each PVC from Network side IME for auto-configuring the PVC to utilize to the connection to network service provider (NSP), see page 7, sections 6, numbers 2 and 5-7, ] between a digital subscriber line (DSL) device (User side IME in the **Broadband network termination**, see page 7, section 6, number 5) and a DSL access module (DSLAM) (Network side IME is a DSL access module, see page 6, “**VCI/VCI**” section indicating connection between the B-NT and DSLAM and page 7, section 6, number 6); and

automatically configuring said first PVC using one of a plurality of PVC auto-configuration algorithms [the PVC is auto-configured using **ILMI auto-configuration algorithm** enabling the B-NT to have sufficient information to utilize the connection to the NSP, as disclosed on page 7, section 6, number 5-7].

Regarding claim 6, DSL Forum discloses on page 7, section 6, lines 1-6 wherein a PVC auto-configuration algorithm consisting essentially of integrated local management interface (ILMI) PVC auto-configuration [**ILMI-based B-NT Auto Configuration**] *Note: According to*

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*MPEP 2105, "consisting essentially of for searching purposes is equivalent to comprising unless otherwise stated in the spec. or claim.*

Regarding claim 8. A system to configure a network device, comprising;

a digital subscriber line (DSL) customer premise equipment (CPE) [B-NT (Broadband Network Termination, Page 7, section 6, number 5 and see Introduction lines 1-6];

a DSL access module (DSLAM) connected to said DSL CPE [Network side IME is a DSL access module, see page 6, "VCI/VCI" section indicating connection between the B-NT and DSLAM and page 7, section 6, number 6];; and

a DSL configuration manager [User-side Interface Management Entity (IME), page 7, section 6, number 5] to configure a permanent virtual circuit (PVC) between said DSL CPE ( and said DSLAM using one of a plurality of auto-configuration algorithms [customer requests/orders for services, see page 7, section 6, number 2; whereby based on the (received) order, the user side IME (configuration manager) performs an ILMI based Auto-configuration by obtaining configuration parameters and user profiles for each PVC from Network side IME for auto-configuring the PVC to utilize to the connection to network service provider (NSP), see page 7, sections 6, numbers 2 and 5-7].

Regarding claim 11, DSL Forum discloses of a configuration manager [user-side IME, page 7, section 6, number 5] for a network device [(DSL) B-NT, page 7, section 6, number 5], comprising:

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a detection module to detect connection of a digital subscriber line (DSL) device with a DSL access module (DSLAM) [the detection module is inherent since the DSL physical connection between the user-side IME and the network-side IME is established (detected) upon the DSL B-NT having the user-side IME is powered on, as disclosed on page 7, section 6, number 3 and 5];

a configuration module [user-side IME, page 7, section 6, number 5] to configure a permanent virtual circuit (PVC) between said DSL device (DSL B-NT) and said DSLAM (Network side IME is a DSL access module) using one (ILMI) of a plurality of PVC auto-configuration algorithms [the user side IME (configuration module) performs an ILMI based Auto-configuration by obtaining configuration parameters and user profiles for each PVC from Network side IME for auto-configuring the PVC to utilize to the connection to network service provider (NSP) when a customer requests for service, see page 7, sections 6, numbers 2 and 5-7].

Regarding claim 4, DSL Forum further discloses comprising:

receiving a request to configure a second PVC [customer requests/orders for two services (2<sup>nd</sup> service request), see page 7, section 6, number 2; whereby based on the (received) order, the user side IME performs an ILMI based Auto-configuration by obtaining configuration parameters and user profiles for each PVC from Network side IME for auto-configuring the PVC to utilize to the connection to network service provider (NSP), see page 7, sections 6, numbers 2 and 5-7, ] for the DSL device [User side IME in the Broadband network termination, see page 7, section 6, number 5];

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receiving configuration information for the second PVC [as disclosed on page 7, section 6, number 6, the user side IME sends a series of requests to the Network side IME to obtain its service type table, VCC (VPI/VCI) table, service connection information table and configuration parameters for each (second) PVC]; and

configuring the second PVC using the said information [each PVC (which includes the second service request) is auto-configured using ILMI auto-configuration algorithm enabling the B-NT to have sufficient information to utilize the connection to the NSP, as disclosed on page 7, section 6, number 5-7]..

Regarding claims 5, 10 and 13, DSL Forum discloses on page 7, section 6, number 5 and table 1 wherein said PVC may be configured using configuration information comprising a virtual channel identifier (VCI) and a virtual path identifier (VPI) [User-side IME (configuration module) sends a series of GETNEXT requests to the network side to obtain configuration parameters VCI/VPI (see table 1) for each PVC for obtaining configuration of particular service].

*Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 14 rejected under 35 U.S.C. 103(a) as being unpatentable over TR-037 (“Auto-Configuration for the Connection Between the DSL Broadband Network Termination (B-NT) and the Network using ATM”, March 2001), herein after referred as “DSL Forum” in view of Tang (U.S. Patent No. 6,873,628).

Regarding claim 14, DSL Forum discloses on page 7, section 6 of an article comprising: receiving a request to configure a first permanent virtual circuit (PVC) [customer requests/orders for services, see page 7, section 6, number 2; whereby based on the (received) order, the user side IME performs an ILMI based Auto-configuration by obtaining configuration parameters and user profiles for each PVC from Network side IME for auto-configuring the PVC to utilize to the connection to network service provider (NSP), see page 7, sections 6, numbers 2 and 5-7, ] between a digital subscriber line (DSL) device (User side IME in the Broadband network termination, see page 7, section 6, number 5) and a DSL access module (DSLAM) (Network side IME is a DSL access module, see page 6, “VCI/VCI” section indicating connection between the B-NT and DSLAM and page 7, section 6, number 6); and

automatically configuring said first PVC using one of a plurality of PVC auto-configuration algorithms [the PVC is auto-configured using ILMI auto-configuration algorithm enabling the B-NT to have sufficient information to utilize the connection to the NSP, as disclosed on page 7, section 6, number 5-7].

*DSL Forum fails to disclose a storage medium including stored instructions that when executed by a processor results in configuration of a PVC.*



Tang teaches in col. 5, lines 59-63 of a network management system (NMS) communicating with an ADSL network to provision resources for participating users. Tang further discloses in col. 5, lines 64 to col. 6, lines 25, that the NMS provides the RAM (storage medium), which is connected to the subscriber, instructions for configuration of the ADSL PVC, the NMS (processor) communicates with RAM to calculate and assign the VPI and VCI values to create the VPI/VCI unique combination for the PVC being created. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of the DSL Forum to include the features of having a RAM with stored instruction executed by the NMS as taught by Tang. **One is motivated as such in order to optimally provision PVCs via NMS using the configuration variable VPI/VCI combination in the RAM** (*Tang, col. 6, lines 10-25*).

6. Claim 9 rejected under 35 U.S.C. 103(a) as being unpatentable over TR-037 ("Auto-Configuration for the Connection Between the DSL Broadband Network Termination (B-NT) and the Network using ATM", March 2001), herein after referred as "DSL Forum" in view of AF-NM-0122.00 ("Auto-configuration of PVCs", May 1999), hereinafter referred as "ATM Forum".

Regarding claim 9, DSL Forum discloses on page 3, paragraph 5 an auto-configuration method that will enable a DSL B-NT to obtain automatically connections to one or more network services. *DSL Forum explicitly fails to disclose the DSL CPE (B-NT) consisting essentially one of the following: an asynchronous DSL (ADSL)/asynchronous mode (ATM) router and an ADSL/ATM bridge.* The ATM Forum discloses in fig. 1 of an example of auto-configuration

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using the protocol ILMI for ADSL. The ATM Forum discloses in fig. 1 of an ATU-Router being the DSL-CPE for obtaining and exchanging ILMI for setting up a PVC. Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention to modify the teachings of DSL Forum to include the DSL B-NT consisting essentially of an ADSL router as taught by ATM Forum. One is motivated by such in order to for the network termination point at the customer premise ADSL router processor for receiving auto-configuration information enabling automatic provisioning of PVC (*ATM Forum, see page 1*).

*Allowable Subject Matter*

7. Claims 2, 3, 7, 12, and 15-18 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2 and 15, Prior Art fails to disclose of selecting a second PVC auto-configuration algorithm in accordance with the determination whether the first PVC has been configured in combination with other limitation set forth in the claims.

Regarding claims 7 and 18, Prior Art fails to disclose sending a message that the first PVC was not configured after each of the plurality of PVC auto-configuration algorithms have been used in combination with other limitations set forth in the respective claim.

Regarding claim 12, Prior Art fails to disclose an analysis module to provide selection information to select another PVC auto-configuration algorithm in accordance

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with results from the validation module in combination with other limitations set forth in claim.

Regarding claim 16, Prior Art fails to disclose selecting a second PVC auto-configuration algorithm by determining the first PVC auto-configuration algorithm has failed in combination with other limitations set forth in the respective claims.

Regarding claim 17, Prior Art fails to disclose wherein the stored instructions, when executed by a processor, further results in receiving a request to configure a second PVC for the DSL device, receiving configuration information for the second PVC, and configuring the second PVC using the configuration information in combination with other limitations set forth in the respective claim.

### *Conclusion*

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**Or faxed to:**

571-272-8300, (for formal communications intended for entry)

Hand-delivered responses should be brought to Crystal Park II; 2021 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

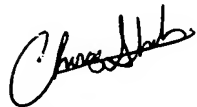
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cgs

July 19, 2005

A handwritten signature in black ink, appearing to read 'Chirag Shah', is written over the printed name.

Chirag Shah